


■ Features :

- Universal AC input / Full range (up to 295VAC)
- Built-in active PFC function
- High efficiency up to 88.5%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty (Note.6)



SELV

LPS


(for 48V only)

US

(except for 48V)

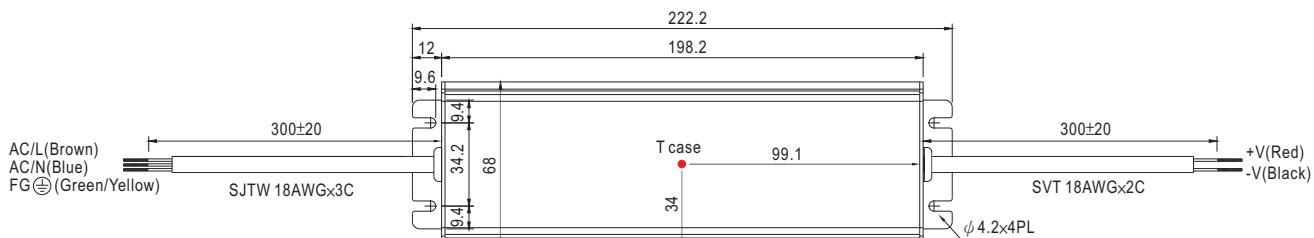
IP67

SPECIFICATION

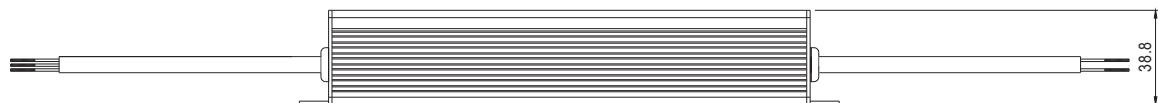
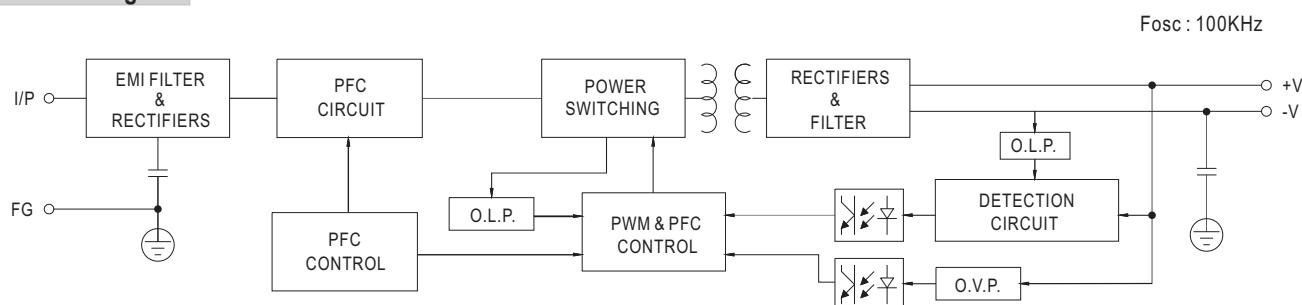
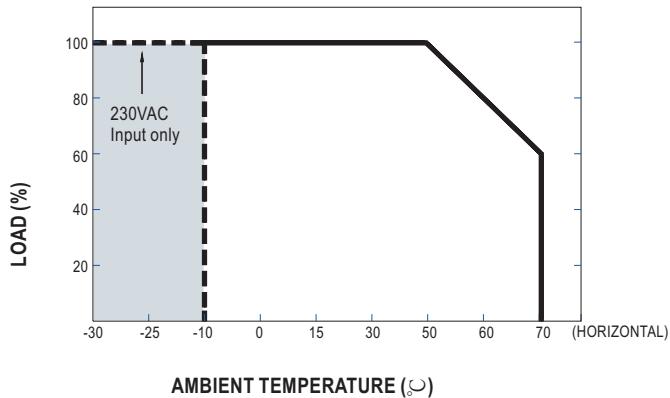
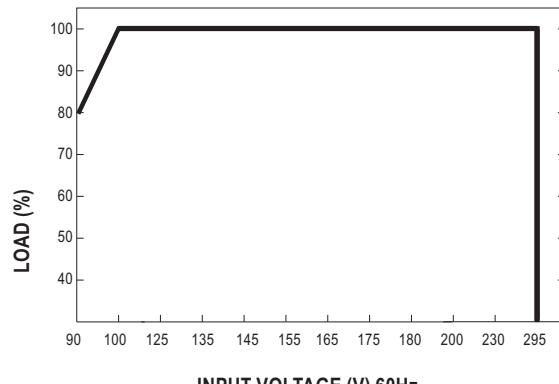
MODEL	CLG-100-12	CLG-100-15	CLG-100-20	CLG-100-24	CLG-100-27	CLG-100-36	CLG-100-48	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	27V	36V	
	CONSTANT CURRENT REGION Note.7	9 ~ 12V	11.25 ~ 15V	15 ~ 20V	18 ~ 24V	20.25 ~ 27V	27 ~ 36V	
	RATED CURRENT Note.5	5A	5A	4.8A	4A	3.55A	2.65A	
	RATED POWER Note.5	60W	75W	96W	96W	95.85W	95.4W	
	RIPPLE & NOISE (max.) Note.2	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	200mVp-p	
	VOLTAGE ADJ. RANGE	Fixed. Can be modified between 0% ~ -15% rated output voltage						
	CURRENT ADJ. RANGE	Fixed. Can be modified between 3% ~ -25% rated output current						
	VOLTAGE TOLERANCE Note.3	±3.0%	±3.0%	±3.0%	±3.0%	±3.0%	±2.0%	
	LINE REGULATION	±1.0%						
	LOAD REGULATION	±2.0%						
INPUT	SETUP, RISE TIME	1200ms, 80ms / 230VAC		1200ms, 80ms / 115VAC at full load				
	HOLD UP TIME (Typ.)	60ms / 230VAC		30ms / 115VAC at full load				
	VOLTAGE RANGE Note.4	90 ~ 295VAC		127 ~ 417VDC				
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR (Typ.)	PF>0.95/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)						
	EFFICIENCY (Typ.)	83%	85%	88.5%	88.5%	88%	88%	
	AC CURRENT (Typ.)	12V:0.8A/115VAC 20V ~ 48V:1.1A/115VAC	0.4A/230VAC 0.55A/230VAC	0.3A/277VAC 0.45A/277VAC	15V:0.9A/115VAC 20V ~ 48V:1.1A/115VAC	0.45A/230VAC 0.35A/277VAC	0.35A/277VAC	
PROTECTION	INRUSH CURRENT(max.)	COLD START 40A(twidth=1030μs measured at 50% Ipeak) at 230VAC						
	LEAKAGE CURRENT	<0.75mA / 240VAC						
	OVER CURRENT (Typ.)	95 ~ 102%						
	Protection type : Constant current limiting, recovers automatically after fault condition is removed							
ENVIRONMENT	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	13 ~ 16V	16.5 ~ 20V	22 ~ 27V	27 ~ 34V	30 ~ 36V	39 ~ 48V	
	Protection type : Shut down and latch off o/p voltage, re-power on to recover							
SAFETY & EMC	OVER TEMPERATURE	Shut down o/p voltage, re-power on to recover						
	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")						
	WORKING HUMIDITY	20 ~ 95% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)						
OTHERS	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes						
	SAFETY STANDARDS Note.8	UL879, UL8750, UL1310, TUV EN61347-1, EN61347-2-13 independent, CAN/CSA C22.2 No. 223-M91(except for 48V), CSA C22.2 No. 250.0-08(except for 48V), CSA C22.2 No. 207-M89(except for 48V), TUV EN60950-1, IP67, J61347-1, J61347-2-13 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC	I/P-FG:2KVAC	O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH						
NOTES	EMC EMISSION	Compliance to EN55015, EN55022 (CISPR22) Class B, EN61000-3-2 Class C ($\geq 75\%$ load) ; EN61000-3-3						
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN61547, EN55024, light industry level (surge 4KV), criteria A						
	MTBF	301K hrs min. MIL-HDBK-217F (25°C)						
DIMENSION	222.2*68*38.8mm (L*W*H)							
	PACKING	1.0Kg; 12pcs/13Kg/0.58CUFT						
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.							
	2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.							
	3. Tolerance : includes set up tolerance, line regulation and load regulation.							
	4. Derating may be needed under low input voltages. Please check the static characteristics for more details.							
	5. This is the maximum possible output current and power, over load protection may be activated slightly below this level to comply with the requirement of UL1310 class 2.							
	6. 3 years warranty is guaranteed for operating ambient temperature no higher than 68°C.							
	7. Please refer to "DRIVING METHODS OF LED MODULE".							
	8. Safety and EMC design refer to EN60598-1, subject 8750(UL), CNS15233, GB7000.1, FCC part18.							
	9. The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.							

Mechanical Specification

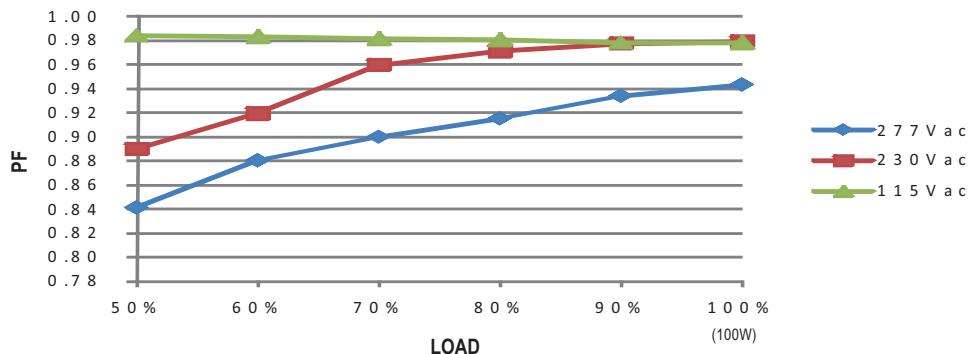
Case No. 954A Unit:mm



※ T case: Max. Case Temperature.

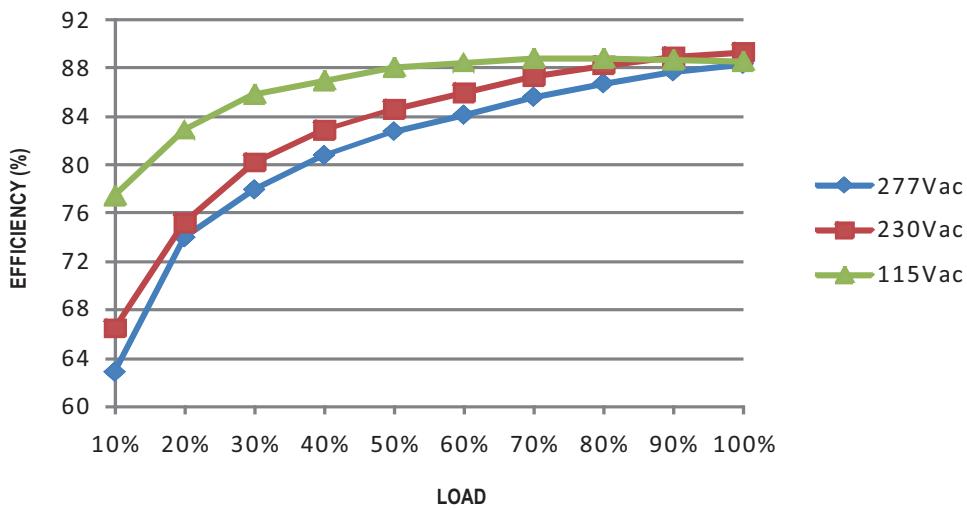

Block Diagram

Derating Curve

Static Characteristics


■ Power Factor Characteristic

Constant Current Mode


■ EFFICIENCY vs LOAD (48V Model)

CLG-100 series possess superior working efficiency that up to 89% can be reached in field applications.



■ DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].

